

DUAL DIFFERENTIAL COMPARATOR CIRCUIT WITH FULL RANGE OF INPUT SWING

ABSTRACT OF THE DISCLOSURE

The differential comparator circuit for receiving an input voltage within a pre-determined range, amplifying the input voltage, and outputting an output voltage is provided. The circuit includes: a first differential comparator for receiving the input voltage within a first range portion of the range, amplifying the input voltage within the first range portion, and outputting the output voltage, a detecting circuit electrically connected to the first differential comparator, wherein a trigger signal is produced by the detecting circuit when the first differential comparator is shut down and is detected by the detecting circuit, and a second differential comparator electrically connected to the detecting circuit for receiving the input voltage within a second range portion of the range, amplifying the input voltage within the second range portion, and outputting the output voltage in response to the trigger signal.